



Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

January 10, 1992

Mr. Ken A. Kluksdahl
Goldstrike Mine Manager
Tenneco Minerals
P.O. Box 2650
St. George, Utah 84770

Dear Mr. Kluksdahl:

Re: Final Approval of Permit Amendment, Sediment Storage Pond Upgrade,
Goldstrike Mine, M/053/005, Washington County, Utah

The Division has received copies of review comments from the Utah State Division of Water Rights and the Division of Water Quality regarding Tenneco's proposed plans to upgrade the sediment storage pond at the Goldstrike Mine. Please accept our apology for the delay and oversight in not forwarding these to you sooner.

This letter will constitute our final approval of this permit amendment. We concur with the comments as outlined in the enclosed review letters. Please incorporate these design recommendations as part of your plans to upgrade the sediment pond. Thank you for your patience and cooperation in finalizing this permitting action. Please contact me directly if you have questions regarding this approval.

Sincerely,

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb

Enclosure

cc: Debra Brannum, Tenneco
Richard Hall, DWR
Kiran Bhayani, DWQ
Debra Pietrzak, Dixie RA, BLM - w/enc.

M053005.1



Norman H. Bangarter

Governor

Dee C. Hansen

Executive Director

Robert L. Morgan

State Engineer

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RIGHTS

1636 West North Temple, Suite 220

Salt Lake City, Utah 84116-3156

801-538-7240

October 25, 1991

DOGM
MINERALS PROGRAM
FILE COPY

RECEIVED

OCT 30 1991

DIVISION OF
OIL GAS & MINING

Mr. Ken A. Kluksdale, Mine Manager
Tenneco Minerals
P.O. Box 2650
St. George, UT 84770

Re: Tenneco Quail Springs Fill Dam and Tenneco Sediment Pond Upgrade

Dear Mr. Kluksdale:

As you are aware, Richard Hall of our Dam Safety Section undertook an inspection of the dams on your site on October 10, 1991. Based on his observations and a review of the available files, plans and specifications, we have the following comments:

Quail Springs Fill Dam

A final inspection of this dam was undertaken. Based on the field examination, it appears the project is satisfactory; this letter will serve as official notice of our acceptance of the completed project.

Sediment Pond Upgrade

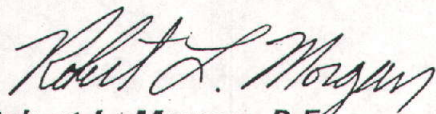
An inspection of the Sediment Dam was undertaken to review the historical problem of piping and review the proposal for upgrading submitted to this office by D. Wayne Hedberg of Oil, Gas & Mining on October 9, 1991. This letter will serve as official notice of our approval of the upgrading, conditional on the following items, which we discussed in the field.

- 1. A filter fabric should be placed under the clay blanket in the lower portion of the pond where the larger rock in the fill tended to segregate.**
- 2. The crest should be made level to avoid ponding and concentration of erosive flows.**

Ken A. Kluksdale
Page 2
October 25, 1991

If you have further questions or comments, please feel free to contact Richard Hall of our Dam Safety Section.

Sincerely,

A handwritten signature in cursive script, reading "Robert L. Morgan".

Robert L. Morgan, P.E.
State Engineer

RLM:rbh:cp

cc: Gerald Stoker, Cedar Regional Engineer
D. Wayne Hedberg, Oil, Gas & Mining



State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

M/053/005

Norman H. Bangerter

Governor

Kenneth L. Alkema

Executive Director

Don A. Ostler, P.E.

Director

288 North 1460 West

Salt Lake City, Utah

(801) 538-6146

(801) 538-6016 Fax

Reply to: State of Utah

Division of Water Quality

Department of Environmental Quality

Salt Lake City, Utah 84114-4870

November 20, 1991

D. Wayne Hedberg
Permitting Supervisor
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

RE: Sedimentation Pond Upgrade

Dear Mr. Hedberg:

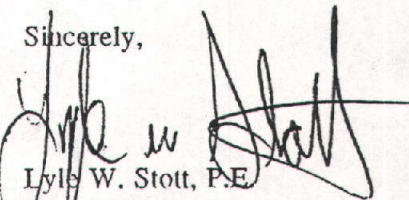
Tenneco Minerals constructed a sedimentation pond down gradient from the Goldstrike facilities to contain storm water runoff. This pond was approved by the Division of Oil Gas and Mining. The structure does not contain 100 year, 24-hour storm water runoff nor remove sediments. Tenneco now plans to convert the sedimentation pond into a containment structure.

In a phone conversation with Mr. Holland Shepherd of your office, we discussed the following required improvements to the sedimentation pond:

1. The sedimentation pond must contain only storm runoff from the Goldstrike facilities generated by a 100-year, 24-hour storm event.
2. The dike must be lined to reduce leakage rates so the solids in storm water runoff are reduced to 25 milligrams per liter prior to entering the receiving stream.
3. A filter layer should be installed between the existing dike and the proposed clay layer to prevent water channeling and eroding the clay.

If you have any questions, or wish to discuss this issue further, please let me know.

Sincerely,


Lyle W. Stott, P.E.
Design Evaluation Section

RECEIVED

NOV 27 1991

LWS:rvg

cc: Mr. Wayne Thomas, Southwest Health Department

Printed on recycled paper

DIVISION OF
OIL GAS & MINING

N:SEDIMENT.OGM



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter

Governor

Dee C. Hansen

Executive Director

Dianne R. Nielson, Ph.D.

Division Director

355 West North Temple

3 Triad Center, Suite 350

Salt Lake City, Utah 84180-1203

801-538-5340

October 9, 1991

MINERALS PROGRAM
FILE COPY

Mr. Ken A. Kluksdahl
Mine Manager
Tenneco Minerals
P. O. Box 2650
St. George, Utah 84770

Dear Mr. Kluksdahl:

Re: Mine Plan Amendment Review - Sediment Pond Upgrade, Tenneco Minerals,
Goldstrike Mine, M/053/005, Washington County, Utah

Thank you for your recent resubmittal of plans for the sedimentation pond upgrade. The Division has reviewed your resubmittal, received September 20, 1991, and finds your response satisfactory. However, the Division is requesting review comments and concurrence from the State Division of Water Rights, Dam Safety, the State Division of Water Quality and the Bureau of Land Management, prior to our issuance of final approval of these plans.

We hope to receive all review comments from these agencies by October 31, 1991. Unless otherwise advised, we will be prepared to finalize our approval at that time. I hope this will not significantly compromise your proposed construction schedule. Thank you for your continued cooperation and patience in completing this permitting action.

Sincerely,

D. Wayne Hedberg
Permitting Supervisor
Minerals Regulatory Program

jb

cc: Debra Petrizak, BLM, Dixie RA, w/enclosures
Robert Morgan, Dam Safety, w/enclosures
Don Ostler, DWQ, w/enclosures

M053005.1